

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

|                   |  |
|-------------------|--|
| FRIST: 26.12.05   |  |
| VORFRISTEN: 11.05 |  |
| AKTE:             | NOT: <input checked="" type="checkbox"/> WRITTEN OPINION OF THE<br>INTERNATIONAL SEARCHING AUTHORITY<br>(PCT Rule 43bis.1) |

PCT

To:

see form PCT/ISA/220

Gleiss & Glöckle  
Patentanwälte  
29. JUNI 2005  
SC

Date of mailing  
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference  
see form PCT/ISA/220

**FOR FURTHER ACTION**  
See paragraph 2 below

International application No.  
PCT/EP2005/002067

International filing date (day/month/year)  
26.02.2005

Priority date (day/month/year)  
26.02.2004

International Patent Classification (IPC) or both national classification and IPC  
C12Q1/02, C12N1/20, C12N15/63, C12N15/09

Applicant  
MIXIS FRANCE S.A.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☐ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1 bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

Name and mailing address of the ISA:



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**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2005/002067

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**Box No. 1 Basis of the opinion**

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1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - ☒ a sequence listing
    - ☐ table(s) related to the sequence listing
  - b. format of material:
    - ☒ in written format
    - ☒ in computer readable form
  - c. time of filing/furnishing:
    - ☒ contained in the international application as filed.
    - ☒ filed together with the international application in computer readable form.
    - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/EP2005/002067

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**Box No. V Reasoned statement under Rule 43b/s.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

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**1. Statement**

|                               |             |       |
|-------------------------------|-------------|-------|
| Novelty (N)                   | Yes: Claims | 1-60  |
|                               | No: Claims  | 61,62 |
| Inventive step (IS)           | Yes: Claims | 1-60  |
|                               | No: Claims  | 61,62 |
| Industrial applicability (IA) | Yes: Claims | 1-62  |
|                               | No: Claims  |       |

**2. Citations and explanations**

**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

**PCT/EP2005/002067**

**Additional remarks to item I**

This first written opinion was established on the application documents as filed and the written sequence listing pages 1-3, SEQ ID No 1 to SEQ ID No 12.

**Additional remarks to item V**

**I.** Claims 61 and 62 disclose any protein and fermentation product obtainable by the claimed processes.

A product is not rendered novel merely by the fact that it is produced by means of a new process.

Therefore, **claims 61 and 62** do not satisfy the criteria of Article 33(2) PCT.

**ii.** The cited prior art documents describe a process for reducing mutation frequency in a cell. Nevertheless, they do not state that at least two mutations have to be introduced into said cell in such a way that their combined actions lead to an enhanced capability of at least two DNA repair mechanisms to repair spontaneously occurring mutations in said cell.

Therefore, claims 1-60 seem to be novel and inventive (Articles 33(2) and 33(3) PCT).  
In addition, claims 1-62 all satisfy the conditions of Article 33(4) PCT.